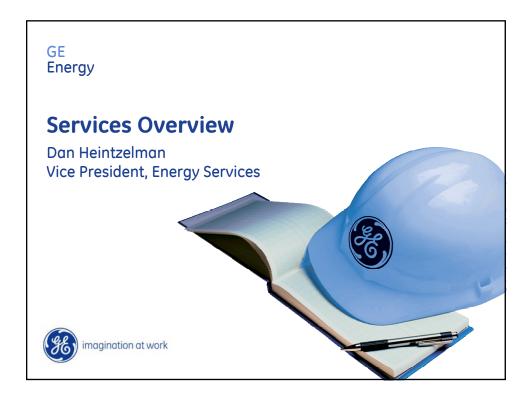
# GE's Technology and Services Analyst Meeting May 4, 2006 imagination at work



### **GE Energy ... services**

#### Complete solutions across the energy industry

#### **Power generation services**

- Contractual services
- Installation and field services
- Parts and repairs
- Upgrades
- Reactor and fuel services
- Rentals

#### **Plant & network solutions**

- Optimization and control
- Environmental performance
- Network optimization and reliability















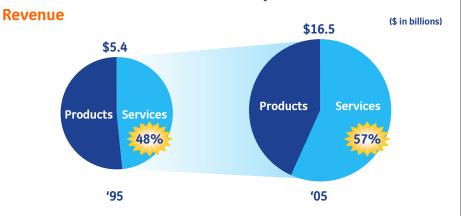






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# Portfolio transformation ... products / services



- Large installed base driving services growth ... up ~4X since '95
- Expanding capabilities ... optimization and control, environmental, network reliability
- Contractual Service Agreements ... broadening contract scope



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# **Energy ... growth model**



Differentiate with technology

Grow installed base ... flowdown technology



Win lifecycle service

Grow core services ...
ValPaks & CSAs



System optimization

Expanding growth
 platforms ... optimization
 & control, environmental



Everywhere in the world

China, Africa, India,
Middle East, Eastern Europe

Delivering value to our customers and shareholders



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#### Grow the core ... contractual services

(\$ in billions)

# \$31 \$17 Energy Services \$1B

**'95** 

74

'00

653

'05

1,532

**Backlog** 

# Increasing customer value

• Part life extension ... advanced repairs

**Highlights** 

• Performance, availability & emissions

#### **Broadening contract scope**

- Operations & maintenance
- Balance of plant ... optimization

#### Improving fuel flexibility

- Emissions and turndown
- Wide Wobbe / multiple fuels
- Durability



**GT units** 

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# **Upgrades ... cleaner combustion**

#### Advanced gas turbine dry low NOx

- Wide operating range, improved performance, sustained durability
- Exceeding performance goals at 1,700 hours
- Industry leader in low emissions guarantees
- Collaboration with Global Research Center

#### **Customer value**

- Reduced NOx emissions ... equivalent to 400,000 cars / year
- Reduced fuel costs ... \$3MM / year
- Improved operability and availability





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# **Fuel flexibility**

#### Variety of fuels

High gas prices driving significant substitution

- Natural gas
- LNG
- Refinery gases
- Coal
- Oil & crude
- Others



#### **Demanding needs**

Customers demanding cleaner technology & more flexibility

- Lower emissions
- Increased turndown
- Multi-fuel capable
- Durability



#### Innovative solutions to meet changing needs



Dry Low



OpFlex<sup>™</sup>



Extendor™



Dual fuel transfer



Low BTU combustors

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# **Upgrades ... more efficient operation**

#### **Evolution Compressor**<sup>™</sup>

- Upgrade opportunity for 2,200 units
- New compressor upgrade ... \$55MM investment
- 3D aero ... Aviation technology

#### **Customer value**

- Significant performance improvement ... \$1MM / year
- Platform for additional uprates ... new combustion and turbine sections
- Full scale testing underway ... launch date is 1007



**3D Aero Design** 



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# **Upgrades ... increased performance**

#### Steam turbine Dense Pack™

- Advanced technology for an aging fleet
- More than 100 years proven GE experience
- Validated field performance ... 100+ units in service
- ~300+ additional opportunity

#### **Customer value**

- Replace aging components with advanced technology
- Increase output up to 1.5% ... ~10 MW
- Enhance asset utilization





# Increasing productivity at the customer site ...

**Utilizing aviation through lean process** 

#### Reducing outage cycle time

- Time and movement analysis
- Pre-planning, better tooling
- Process improvement

#### **Customer value**

- Customers online sooner ... up to \$300k / day additional revenue
- Enabled by contractual services outage process

#### Example

7 day outage reduced to 4.5 .. targeting 3.5





# **Growth in optimization and control**

(\$ in billions)

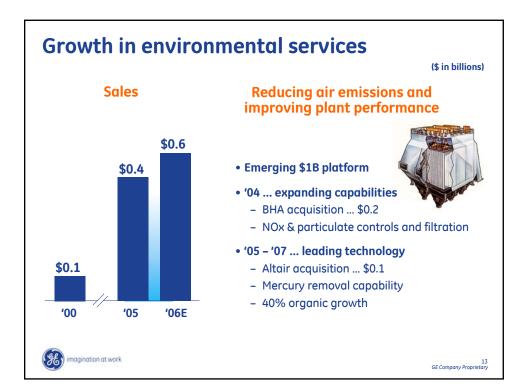
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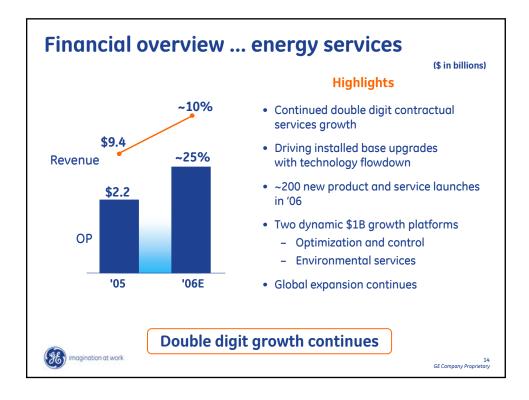
Sales

# Maximize economic performance on equipment & plant level

- Emerging \$1B platform
- '01 '05 ... integrated platforms
  - Condition monitoring
  - Controls, software, oil & gas drilling sensors
- '06 ... continued growth ... 20%V
  - Xin Hua Distributed Control System ...
     China acquisition
  - Expanded asset coverage







# **Summary**

- Differentiate with technology
- Win lifecycle service
- System optimization
- Everywhere in the world





















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# **GE's Technology and Services**

Analyst Meeting
May 4, 2006



